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OF
OPTIC ATROPHY AND TEMPORAL
HEMIANOPSIA; SUSPECTED
TUMOR OF THE PITUITARY BODY.

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NOTES OF A CASE OF OPTIC ATRO-
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OF THE PITUITARY BODY.

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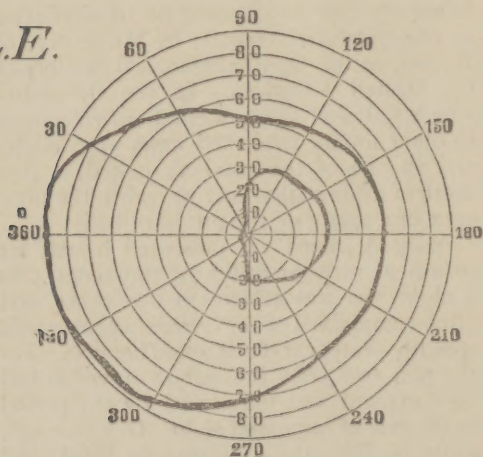
I am induced to publish the notes of the following case on account of its similarity to one presented recently by Mr. Story, of Dublin, to the Ophthalmological Society of the United Kingdom. In the discussion which followed this presentation, references to other similar published cases were made, and in one of the instances quoted, a post mortem examination had revealed the presence of a tumor of the pituitary body.

Mary A., aged 15, presented herself for treatment with the following statement: As a child, she was subject to headaches, and often complained of dim vision, which would speedily disappear if she rested her eyes. For the past two years the failure of vision had been marked and unrelieved by any period or periods of improved sight. One year ago, while reading, the page became blank, and since that time reading has been impossible.

Examination of the Eyes.—R. E. sees hand move; L. E. 20° . Pupils large, 6.5 m. m. facing window, they reacted slowly to the changes of light and shade; anterior chambers natural; irides blue and alike in shade. The ophthalmoscope revealed in the right eye a small, oval optic nerve, entirely green and devoid of capillarity; out and below an absorbing pigment conus, and on the nasal side an area of choroiditis; lymph spaces along arteries full; hypermetropia, 2.5^{D} . In the left eye a small, oval optic nerve; nerve color green, but still partially capillary; vein and artery each full size; hypermetropia, 2^{D} .

The fields of vision were, as in the diagrams below, quite typical *temporal hemia-*

L.E.



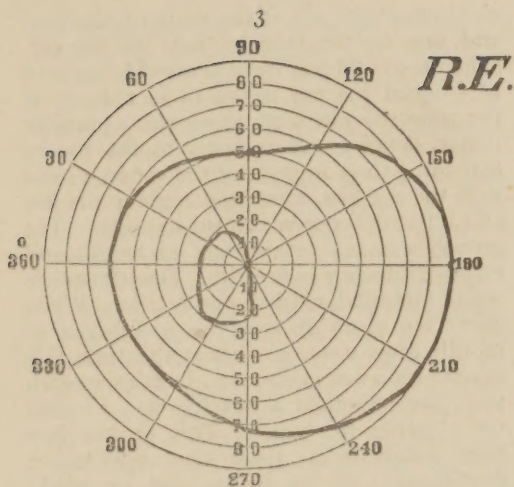


FIG. 1.—Bitemporal hemianopsia. The outer tracings bound the limits of the normal fields for white; the inner tracings show the areas of the fields as they existed.

nopsia. The field of the left eye was taken with a one centimeter square of white; that of the right eye with two candles, the flame of one of which was used for fixation, while that of the other was employed as the test object.

The patient came of healthy Scotch-Irish parentage, and with the exception of whooping cough and measles and the headaches before described, had had no noteworthy illnesses during early childhood. At birth three blue spots (venous *nævi*) were noted, one over the upper part of the left sterno-

cleido-mastoid, one at the angle of the jaw, and one on the face in front of the ear. When the child was eight years old, the spot in front of the ear began to increase. At the time she was seen there was a purplish tumor, doughy and inelastic to the touch, extending from in front of the ear on a level with the zygoma, across the angle of the jaw and into the superior carotid triangle. The growth was ten centimeters in length and eight centimeters in breadth. The left auricle was of a mottled, reddish-purple color. When about ten years of age, this girl began to rapidly grow stout, so that at the time this examination was made, viz., in her sixteenth year, she presented a development unusual for a girl of her years. This growth had been symmetrical; there was no excessive development of the hands, feet or head; neither was there any deformity of the bones, nor indeed of any part except the presence of the tumor before described. Menstruation began in her fourteenth year, and she suffered severely from dysmenorrhœa. The tongue was clean, the bowels regular and her appetite good in spite of a very distressing nausea which often accompanied or followed an almost constant occipital headache. The urine was normal in quantity and color and contained no albumin nor sugar. The mental faculties were undisturbed, the knee-jerks normal and there was no anæsthesia, hyperæsthesia, nor paræsthesia, although she apparently appreciated the prick of a pin more readily on the left than on the right side. Often during the day-time this patient

became very drowsy and slept for hours at a time; on awakening she was cheerful and lively. Her nights were usually good, although occasionally restless. Few days passed without these periods of drowsiness and sleep unless her mind was actively engaged. Excessive sweating, confined chiefly to the face, neck, hands and feet was a marked symptom. When last seen, five months after her original visit, no change in the ocular symptoms had taken place, except a distinct failure of sight in the left eye.

Treatment.—This has been in the main very unsatisfactory, as it of necessity must have been, except as far as the occipital headaches and nausea were concerned. A host of sedative and depresso-motor remedies had been tried without success, but these two symptoms yielded to successive fly-blisters placed over the occiput and along the nape of the neck. Although deprived of useful sight and apparently doomed to still further depreciation of vision, her health in other respects is well-nigh perfect.

Remarks.—The prominent symptoms of the case just described were optic atrophy most marked in the right eye; temporal hemianopsia; occipital headache, nausea and dysmenorrhœa; a tendency to grow stout and periods of drowsiness. These symptoms were closely analogous to those present in the case reported by Mr. Story (*Lancet*, July 25, 1887, p. 1283). Dr. Hill Griffith and Dr. James Anderson referred to similar cases which they had seen and placed upon record. One symptom was present in the case which I

have just detailed, provided this be an instance of tumor of the pituitary body, which I have not seen in other reported cases or supposed cases, viz.: excessive sweating, especially of the hands and feet. The pituitary body is composed of anterior and posterior lobes, the former of which are made up of a fibrous stroma, which contains numerous round and oval follicles filled with epithelial cells, while the latter are formed of a vascular connective tissue, in which collections of fat granules are found. Tumor formation in this body, while perhaps not of very frequent occurrence, has still been quite often noted. Cysts have been described and reported by Zenker (*Virch. Archiv.*, vol. 12) and Weichselbaum (*Ibid.*, vol. 75). A true adenoma of this region has been observed by Weigert (*Virch. Archiv.*, vol 65); Weichselbaum (*loc. cit.*), and Ribbert (*Ibid.*, vol. 90). Klebs (*Viertelj. f. prakt. Heilk.*, 125) describes carcinoma and sarcoma. Weigert (*loc. cit.*) has seen gummata and Weichselbaum (*loc. cit.*) has recorded one instance of lipoma which grew from the posterior lobes of the pituitary body. Other instances of new growth of this region will be found in the Transactions of the Ophthalmological Society of the United Kingdom. There is a very curious state first described by M. Marie (*Lancet*, 1886, vol. 1, p. 1030) and named by him *acromegalie*, in which there is an acquired hypertrophy of the upper and lower extremities and of the head, while the forearms, arms and legs remain natural or grow but little. In addition, certain of the bones are misshapen, much as they are in

the condition known as osteitis deformans. In a recent paper, Minkowski (*Berlin. Klin. Woch.*, 1887, No. 21) discusses this disease, and instances are there recorded in which enlargement of the pituitary body was found at the post-mortem. It seems then that evidences of overgrowth of tissue may be expected in the cases of tumor or hypertrophy of the hypophysis cerebri, whether this manifest itself merely in a tendency to grow stout or in the aggravated condition known as acromegaly. In the case just recorded no acquired hypertrophy or deformity of any tissue was present, except the tumor of the face, although there certainly was this tendency to grow stout. Inasmuch as the very presence of a tumor in sella turcica in this case is merely a matter of surmise, it is perhaps idle to speculate upon what the nature of the growth might be. At the same time, it is not uninteresting to remember in this connection the tumor of the face and upper part of the neck. This bore the clinical characteristics of a subcutaneous venous nævus, inasmuch as it became distended when the patient stooped over, and again diminished in size when she assumed the erect posture. This growth began to enlarge in the patient's ninth year, at about which time, or a little later, the commencement of her present disabilities occurred. It is not unreasonable then to assume that at the same time an hypertrophy of the tissues of the pituitary body took place, an hypertrophy, moreover, akin in its pathological nature to that of the growth upon the face. Be this as

it may, the symptoms in this case have been quite certainly produced by some form of pressure in the neighborhood of the optic chiasma, and from comparisons of other similar reported cases it is not unlikely that this pressure has been occasioned by an overgrowth of the tissues in the sella turcica.

